

REMARKS

Reconsideration of this application is respectfully requested.

Status of the Claims

Claim 1 has been amended to incorporate the subject matter of claim 5. Accordingly, claim 5 has been canceled without prejudice. Claim 6 has been amended to depend from claim 1. New claim 15 has been added, which recites a polyamide-based laminated film where layer (c) is made of a mixture containing an aromatic polyamide and an aliphatic polyamide at a weight ratio of 10:90 to 15:85. Support for this amendment can be found in the Specification at, for example, page 12, lines 20-22. No new matter has been added to the application. Upon entry of this Amendment, claims 1-4 and 6-15 are pending.

Claim Rejections under 35 U.S.C. §102

Claims 1-3 and 7-10 have been rejected under 35 U.S.C. § 102(b) as anticipated by Miyashita et al. (JP 05-000492; "JP '492").

Claim 1 has been amended to incorporate the subject matter of claim 5, which is not rejected over JP '492. The Examiner concedes that JP '492 does not disclose a resistance modifying agent. *See*, Non-Final Office Action dated April 29, 2008, at paragraph 32. Thus, this rejection is moot.

Claim Rejections under 35 U.S.C. §103

Claims 1 and 4 have been rejected under 35 U.S.C. §103(a) as obvious over JP '492. Claims 1 and 11-13 have been rejected under 35 U.S.C. §103(a) as obvious over JP '492 in view of Miyashita, et al. (JP 08-156205; "JP '205"). Claims 1 and 14 have been rejected under 35 U.S.C. §103(a) as obvious over JP '492 in view of Tanaka, et al. (JP 2002-172742; "Tanaka").


As discussed above, claim 1 has been amended to include the subject matter of claim 5, which is not rejected over the references cited in the above rejections. The combined teachings of these references fail to disclose or suggest a resistance modifying agent. Thus, these rejections are also moot.

Claims 1 and 5-6 have been rejected under 35 U.S.C. §103(a) as obvious over JP '492 in view of Miyashita, et al. (JP 2002-187246; "JP '246"). According to the Examiner, it would have been obvious to include a resistance modifying agent in the composition of JP '492 because the use of such agents was well-known as evidenced by JP '246.

However, neither JP '492 nor JP '246 teaches or suggests a combination of a resistance modifying agent and a layer containing an aromatic polyamide and an aliphatic polyamide in a 5:95 to 20:80 weight ratio, achieving the claimed flex resistance. Furthermore, the cited references fail to suggest that the claimed weight ratio provides significant improvement in the mechanical properties of a laminated film, specifically, a flex resistance of 5 pinholes or less (per 497 cm²) as claimed in the present application.

A. The cited references fail to teach or suggest the combination of a resistance modifying agent and the claimed weight ratio of aromatic to aliphatic polyamides, achieving the claimed flex resistance

Claim 1, as amended, recites a multi-layered polyamide-based laminated film having, *inter alia*, an aromatic polyamide layer containing a resistance modifying agent and a layer containing an aromatic polyamide and an aliphatic polyamide in a 5:95 to 20:80 weight ratio, where the film achieves a flex resistance of 5 pinholes or less (per 497 cm²) using the disclosed flex resistance test.

Neither JP '492 nor JP '246 teaches or suggests that a combination of a resistance modifying agent and a layer containing an aromatic polyamide and an aliphatic polyamide in a 5:95 to 20:80 weight ratio yields the claimed flex resistance values 5 pinholes or less (per 497 cm²). The Examiner notes that JP '492 reports flex resistance values that are greater than 5 for weight ratios {W:20699\0205038-us0\01623595.DOC  }

that do not correspond to the range claimed in the present application. The Examiner takes the position that at a weight ratio of 1:9, it is assumed that the film would inherently have the claimed flex resistance values because the polymeric structure disclosed in JP '492 is the same as that claimed in this application.

However, Applicants have amended the claims so that the presently claimed laminated film is not the same as that in JP ‘492. Specifically, the presently claimed film contains a resistance modifying agent, which is absent from JP ‘492. Accordingly, the Examiner can no longer rely on the principles of inherency. *See* MPEP § 2112 IV. (“The fact that a certain result of characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. ... To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference ...”) (citations and internal quotes omitted).

B. The claimed ratio of aromatic to aliphatic polyamides yields unexpected and superior results

Applicants have discovered that providing a layer having a specific weight ratio of an aromatic polyamide to an aliphatic polyamide disposed adjacent to an aromatic and/or aliphatic polyamide layer surprisingly improves the mechanical properties of the laminated film. *See* Specification at page 5, lines 8-18. Specifically, Applicants found that a weight ratio of the aromatic to aliphatic polyamides that is lower than that used in the prior art significantly improved the flex resistance (and interlaminar peel strength) of the film. (The present claims recite a weight ratio in the range of 5:95 to 20:80. The weight ratio in the films disclosed in JP '492 and JP '246 ranges from 40:60 to 60:40.)

Comparing Example 5 and Comparative Example 3 of the present application demonstrates the effect of the lower weight ratio on the flex resistance of a laminated polyamide film. Example 5 describes a multi-layered polyamide laminated film having an aromatic polyamide layer (A) that contains a resistance modifying agent, an aliphatic polyamide layer (B), and a layer (C) having a mixture of an aromatic polyamide and an aliphatic polyamide in an 15:85 weight ratio.

Using a Gelboflex tester (at 23°C, 50% rel. humidity), the laminated film achieved a flex/pinhole resistance of 2 (number of pinholes/497 cm²). An interlaminar peel strength of 200 g/15 mm was measured.

Comparative Example 3 describes a laminated film having a weight ratio according to the prior art films disclosed in JP '492 and JP '246. A film having a resistance modifying agent and the same structure as that of Example 5, but an (A):(B) weight ratio of 60:40, was prepared. Under identical conditions as Example 5, Comparative Example 3 measured a flex/pinhole resistance of 12 (number of pinholes/497 cm²) and an interlaminar peel strength of 230 g/15 mm.

These results demonstrate that a weight ratio of the aromatic to aliphatic polyamides that is lower than that used in the prior art significantly improved the flex resistance (and interlaminar peel strength) of the film. According to the Examiner, JP '492 discloses a broad preferred weight ratio range of 7:3 to 1:9. However, nothing in JP '492 discloses or suggests that modifying the weight ratio affects the flex resistance, i.e., that any particular values within the range provide superior flex resistance over any others. Accordingly, Applicants' discovery was surprising.

For the foregoing reasons, the amended claims are not obvious over the combined teachings of JP '492 and JP '246. Applicants respectfully request that the rejection be withdrawn.

New Claims

Claim 15 further specifies an aromatic polyamide to aliphatic polyamide weight ratio of 10:90 to 15:85. For at least the same reasons as discussed above, claim 15 is also allowable over the cited references.

CONCLUSION

In view of the above amendments and remarks, the applicants believe that this application is in condition for allowance. The Examiner is invited to contact the applicants' representative at the telephone number listed below if it is believed that the prosecution of this application will be assisted thereby.

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Respectfully submitted,

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